Algorithm – a set of step-by-step directions for carrying out computation, such as addition, subtraction, multiplication, and division

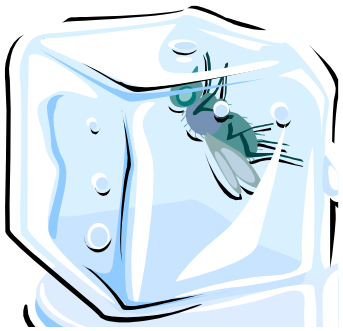
Example $348 + 177 = ?$

		100s	10s	1s
		3	**4**	**8**
		+ **1**	**7**	**7**
Add the 100s.	$300 + 100 \rightarrow$	4	0	0
Add the 10s.	$40 + 70 \rightarrow$	1	1	0
Add the 1s.	$8 + 7 \rightarrow$		1	5
Add the partial sums.	$400 + 110 + 15 \rightarrow$	**5**	**2**	**5**

$348 + 177 = 525$

Degrees Celsius – a temperature scale on which water freezes at 0^o and boils at 100^o

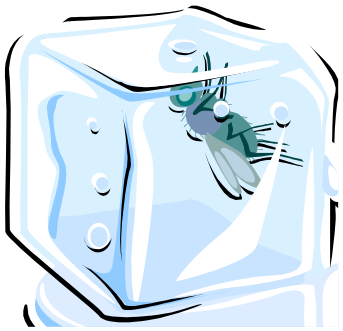
0^o



100^o

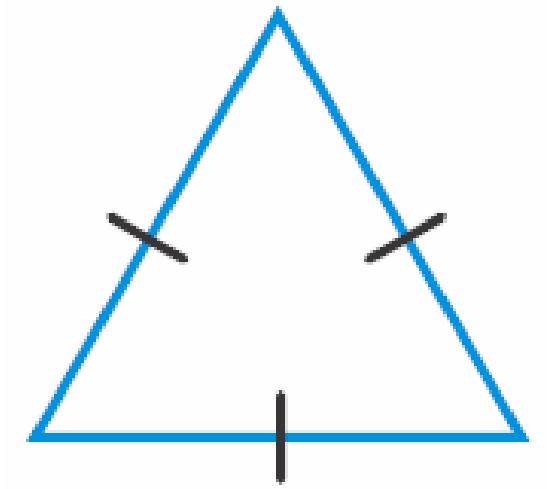
Degrees Fahrenheit – a temperature scale on which water freezes at 32^{o} and boils at 212^{o}

32^{o}

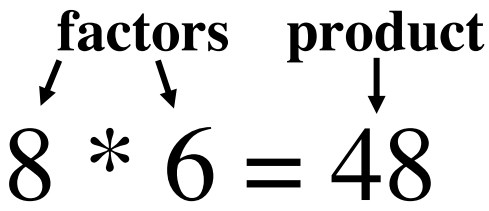


212^{o}

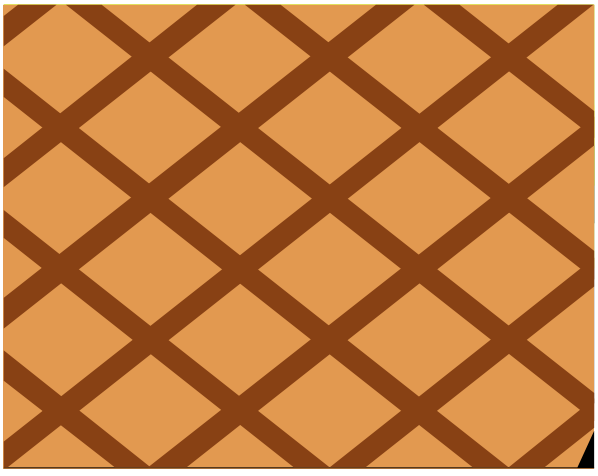
Equilateral Triangle – a triangle with all three sides equal in length; each angle measures 60^{o}, so it is also called an equiangular triangle



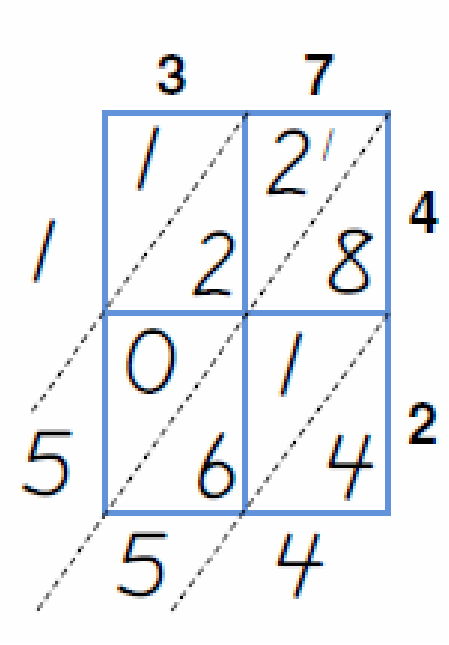
Factor – each of the two or more numbers in a product; as a verb, it also means to represent a number as a product of factors



Lattice – an open framework made of strips of metal or wood that form an interwoven pattern



Lattice Multiplication – a very old algorithm for multiplying multi-digit numbers that requires only basic multiplication facts and addition of 1-digit numbers



An example of 37 * 42

Partial Products – a multiplication algorithm in which partial products are computed by multiplying the value of each digit in one factor by the value of each digit in the other factor; the final product is the sum of the partial products

Example $43 * 26 = ?$

Think of 26 as 20 + 6.

Think of 43 as 40 + 3.

Multiply each part of 26 by each part of 43.

Add the four partial products.

$43 * 26 = 1{,}118$

	100s	10s	1s	
		2	6	
*		4	3	
40 * 20 →	8	0	0	extended multiplication facts
40 * 6 →	2	4	0	
3 * 20 →		6	0	
3 * 6 →		1	8	basic multiplication fact
	1 , 1	1	8	